

Question & Answer Session
CWNS 2008 Training: Cost Curve Overview
November 27, 2007

Q: What do you mean when you say a curve calculates “construction costs” only? Documented needs often legitimately include (SRF-eligible) A/E construction management related costs. Do the cost curve results take this into account?

A: Yes. *“Construction only” includes those other construction-related activities. It does not include the maintenance of the pipes.*

Q: What did you assume was included in “conventional rehabilitation”?

A: *Conventional rehabilitation includes television camera inspection and cleaning of all pipe. It assumed that 25 percent of the pipe would be replaced using an open trench method. Other costs consist of the following:*

- *Cost of sewer construction includes cost of trench backfill, road (asphalt pavement) restoration, right-of-way restoration (grass and sidewalks)*
 - *Reconnection of leads to sewer*
 - *Heavy existing utilities*
 - *Pump station rehab is assumed to cost 25% of new station cost*
 - *Number of pump stations was based on the quantity expected for a new flat area*
-

Q: When you say cost curve for Category III, do you mean IIIa or IIIb? Or, will the CWNS system somehow split the cost between those two subcategories for me?

A: *III-B*

Q: I missed why you used 500, 2500, etc. Why didn't you use the traditional 3300 and under?

A: *For those not familiar, there are certain definitions of small community that refer to populations of 3300 and less. The idea with the cost curves was really trying to focus on communities of 15,000 or less, “What sort of sample population size do we want to focus on if we were picking four points from population zero to population 15,000?” We wanted to pick four different population sizes so that we could break the cost curves into those four intervals, and get a good estimate on those four intervals. So, that is what we looked at and determined the size of 500, 2,500, 5,000, etc. So, the 3,300 figure can be plugged into the equations and we get valid results by doing this.*

Q: With regard to Category IV, was any consideration given to rock? “Hilly” areas may or may not have rock. For example, the rolling hills of the mid-west are different than the mountainous areas.

A: Yes, the “hilly” scenario includes a component for rock removal.

Q: Regarding question one: The convention for cost categories is construction versus non-construction capital costs. Do you mean that these curves are construction only, or capital costs only?

A: These are capital costs only. It is the construction and the construction-related activities that go with construction.

Q: Regarding slide 38, how is “superiority” of a technology determined?

A: For the purposes of the cost analysis, it was intended to distinguish between, the usually lowest cost, conventional gravity-fed tanks and trench systems and those systems that provide either a greater degree of treatment or are more complex than a conventional gravity system. Superior was perhaps a poor word choice and not intended to imply that conventional systems are not appropriate in many cases.

Q: Are “New” OWTS costs eligible CWNS costs in 2008?

A: Yes. This is something new for the 2008 CWNS. In previous surveys, we tied CWNS eligibility directly to Clean Water State Revolving Fund (CWSRF) eligibility. In the CWSRF, new onsite wastewater treatment systems for new development are not SRF eligible. Costs for repairing or replacing the existing systems are eligible. The idea behind this that an existing system can pose a NPS pollution threat; if there is currently no system then there is no NPS pollution threat.

Q: “Rehab” almost always means replace in my State, because technical standards are much more stringent than they used to be. Therefore, when we use the cost curves to estimate costs, the costs generated should be the same as a “new” OWTS, instead of a “rehab” OWTS. Do I have the ability to say “replace” in the CWNS, not just “rehab” or “new”? And, when I say “replace”, is the “new” cost curve algorithm used?

A: Yes. In the guidance we are putting out for the 2008 Survey, there are basically two options. If you are rehabilitating, you can either submit costs for rehabilitating or for putting new systems. The assumption is that if you don’t have some sort of documentation that substantiates why there is a need for a new system, then we use a rehab cost either through documents or through cost curves. If available, you can submit documentation that shows that within an area a specific percentage of septic systems needed to be replaced rather than rehabbed to meet the current standard. Then, you can

justify using new costs or replace costs. These are equivalent standards are equivalent whether you are using cost curves or documented costs.

Q: Did you say a decision was made not to update the cost curves for WWTPs?

A: Yes, the decision was made to not update the curves. There are, basically, two reasons for this. One is that the treatment plant cost curves generated a very small percentage of the needs in 2004. Two, the age of those curves the data goes back to the 70's and early 80's. In slide 51, the coefficients were updated in 1986.

Q: What is the difference between the sewershed and watershed?

A: *Basically, a sewershed is two or more facilities connected to each other. For example, a treatment plant with has multiple connection systems that feed into it is, in combination, called a sewershed. The watershed is a natural hydrologic area. The USGS defines watersheds at different levels. The most common one used for the needs survey is a eight-digit hydrologic unit code (HUC).*

Q: What about locational data?

A: *We do have various locational data requirements for different types of needs. For the cost curves, locational data is only relevant for combined sewer overflow cost curves. Otherwise, the locational data is not used for the cost curves. For more information on locational data requirement, see the CWNS documentation web seminar. The recording, presentation, and q & a document are available at www.epa.gov/cwns/webseminar.htm.*

Q: Is EPA promoting the 1/29 Web-cast to the NPS Coordinators at the States?

Yes, we will be. Mr. Dov Weitman is the Branch Chief for the NPS Branch here at HQs EPA. He will be participating in the Web-cast; he will be sending out announcements to the NPS community, both to the States and the Regions, encouraging them to participate.